

## **REMARKS**

Claims 1-26 are pending in the present application. By this submission, claims 1-10, 13-14, 17-18, and 25 are amended. Reconsideration of the claims is respectfully requested.

It is noted that the independent claims have been amended to recite *determining a validity of a character represented by said data value in response to a member of a data structure, said member having a direct correspondence to said data value* (underlining added for emphasis).

This feature is supported by the disclosure on pages 8-9. One of ordinary skill in the art would realize that the recited relationship is what is described from the description on these pages. That is, each hexadecimal value for a character will map on a one-to-one basis to an entry in Table 400, so the correspondence is direct.

Amendments are made to the specification to correct errors and to clarify the specification. No new matter has been added by any of the amendments to the specification.

Also, applicants have submitted formal drawings, which correct problems noted by the examiner and discussed below.

### **I. Request for Interview**

At the time this response was prepared, the undersigned faxed a request for an interview to the Examiner, at fax (571) 273-5862. Despite this faxed request and at least two phone messages, the examiner has not responded. The Examiner is requested to telephone the undersigned agent for an interview when this response is picked up for action.

### **II. Objection to Drawings**

The examiner is thanked for her thoroughness in citing inconsistencies between the drawings and the specification. The newly submitted formal drawings contain some of the corrections, while other changes were made to the specification, as noted below.

The drawings were objected to “*because reference number 218 is referred to as “disk adapter on page 7, lines 6 and 9 of the specification, but references an item called “I/O Adapter in figure 2.”* In the formal drawings, reference 218 has been changed to “Disk Adapter” to comply with the specification.

The drawings are objected *“because they include the following reference character(s) not mentioned in the description: 230 and 409.”* Additionally, the drawings are objected to *“because reference number 240 is referred to as ‘operating system’ on page 6, line 23 and page 7, lines 2, 8, and 12, but references an item called ‘application’ in figure 2.”* It is noted that references in the specification to *“operating system 240”* have been changed to *“operating system 230”*. Likewise, references in the specification to *“application 250”* have been changed to *“application 240”*. It is believed that the reference number that the examiner read as *“409”* is actually meant to be reference number *“404”*, as shown in the new formal drawings. Reference *“404”* can already be found in the specification.

### **III. Objection to Disclosure**

The disclosure has been objected to because a number of reference numbers cited in the specification did not appear in the drawings. These objections are traversed. The reference numbers and the page(s) on which they are cited are: **100** (page 6, lines 12 and 13), **108** (page 6, line 15), **250** (page 6, line 24 and page 7, lines 2 and 8), **404** (page 8, line 24), **406-414** (pages 8 and 9), and **311** (page 10). Of these cited references, reference **250** was changed in the specification to **240** and reference **311** was changed to **312**. It is believed that reference number **404** was mistakenly read as **409**. The remaining references numbers have been added to the formal drawings. All objections are overcome.

### **IV. 35 U.S.C. § 101: Claims 1-8**

The examiner has rejected claims 1-8 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter *“because all of the method steps can be performed mentally or by hand”*. This rejection is respectfully traversed.

Claims 1-8 have been amended to recite a *“computer-implemented method”*. This amendment overcomes the objection.

### **V. 35 U.S.C. § 112, Second Paragraph: Claim 9**

The examiner has rejected claim 9 under 35 U.S.C. § 112, second paragraph, as being indefinite for containing elements of both apparatus and method claims. This rejection is

respectfully traversed. Claim 9 has been amended to recite *circuitry for* performing the recited step.

Additionally, claim 10 is objected to because *said indexing step* lacks antecedent basis. This rejection is respectfully traversed. This claim has been amended to replace the reference to performing a step with a reference to the operation of the recited circuitry.

Therefore the rejection of these claims has been overcome.

**VI. 35 U.S.C. § 102, Anticipation: Claims 1-6, 9-14 and 17-22**

Claims 1-6, 9-14 and 17-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sikdar (U.S. Patent No. 5,916,305) (hereinafter “Sikdar”). This rejection is respectfully traversed.

Representative claim 1 recites,

1. (Currently amended) A computer-implemented character validation method comprising the steps of:
  - retrieving a data value from a character stream;
  - determining a validity of a character represented by said data value in response to a member of a data structure, said member having a direct correspondence to said data value, wherein said validity is determined in response to a logical combination of status values in said member of said data structure.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

The rejection states,

- With respect to claim 1, Sikdar (5,916,305) discloses a character validation method comprising the steps of:
- retrieving a data value from a character stream (col. 5, lines 55-57);
  - determining a validity of a character represented by said value in response to a member of a data structure corresponding to said value wherein said

validity is determined in response to a logical combination of status values in said member of said data structure (col.6, lines 13-19).<sup>1</sup>

**Sikdar** does not anticipate the claimed invention since **Sikdar** does not show the step of *determining a validity of a character represented by said data value in response to a member of a data structure, said member having a direct correspondence to said data value*. **Sikdar** is not performing a character validation, as claimed. Instead, this patent is rather performing a protocol validation, noting that *data communication packets are processed to determined [sic] whether they match network protocols using a parser table and a predictive parser*.<sup>2</sup> While there are similarities between the method of **Sikdar** and the claimed invention, **Sikdar** notes:

The predictive parser 105 uses the offset value and data value of a received element as a lookup 205 into parser table 107. The parser table 107 returns 207 a value indicating whether the data element is match ("A") to a particular network protocol encoded in the parser table 107, not a match ("F"), a Don't Care ("D") or the end ("E") of the packet or relevant portion of the packet to be decoded (since only a portion need be decoded in order to determine whether it matches a particular portion of a protocol).<sup>3</sup>

Notably, **Sikdar** uses two separate values – the offset value and the data value – to determine the validity of a character. That is, not only must the character be valid, but it must be valid for the specific location where it is found. This means that there is not a *direct correspondence* between the value of the character and the member of the data structure that determines its validity. Instead, the correspondence between the character and the member of the data structure is an indirect one, since it also depends on another, separate value – the offset of the character in the message. Therefore, claim 1 is not anticipated by **Sikdar**. Likewise, claims 9 and 17 are rejected for the same reasons as claim 1, so they are likewise not anticipated. Further, since claims 2-6, 10-14 and 18-22 depend from claims 1, 9, and 17, the same distinctions between **Sikdar** and the claimed invention in claim 1 apply also for these claims. Additionally, claims 2-6, 10-14 and 18-22 claim other additional combinations of features not suggested by the reference.

For example, claim 5 recites *if each character in said stream is valid, applying a predetermined set of syntactic rules to byte patterns comprising said character stream*. The portion of **Sikdar** cited against this claim states,

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<sup>1</sup> Office Action dated February 9, 2005, page 5

<sup>2</sup> Sikdar, abstract

<sup>3</sup> Sikdar, column 6, lines 13-22

The output of the parser stack 109 is passed to the semantic engine 111, which performs an appropriate action, such as incrementing a packet count, or other management, assembly, disassembly, or analytical action.<sup>4</sup>

This excerpt makes no mention of applying a set of syntactic rules to byte patterns; it simply recites that further actions can be performed, such as counting, assembly, etc. This excerpt does not show the recited step and the rejection of this claim is overcome.

Consequently, it is respectfully urged that the rejection of claims 1-6, 9-14 and 17-22 have been overcome.

Furthermore, **Sikdar** does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. **Sikdar** is directed to validating a protocol in which the offset of a character affects the validity of the character; this patent provides no suggestion to validate a character only by its value. Indeed, modifying this patent to ignore the offset would not perform the function for which **Sikdar** was designed. Therefore, one of ordinary skill in the art would not be led to modify **Sikdar** to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify **Sikdar** in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

## **VII. 35 U.S.C. § 103, Obviousness: Claims 7, 8, 15, 16 and 23-26**

Claims 7, 8, 15, 16 and 23-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over **Sikdar** in view of **Sowler** (U.S. Patent Publication No. 2002/0044662) (hereinafter "**Sowler**"). This rejection is respectfully traversed.

The rejection states:

... **Sikdar** does not expressly disclose that said character stream comprises characters in accordance with a specification for an extensible markup language, particularly XML, or that said syntactic rules include rules in accordance with XML.

**Sowler** teaches that it is known to use a protocol analyzer to determine the format of an XML document (par. 106, lines 1-5; par. 144, lines 1-3; fig. 8). **Sikdar** and **Sowler** are analogous art because they are both from the same field of endeavor of input processing.<sup>5</sup>

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<sup>4</sup> **Sikdar**, column 16, lines 38-41

<sup>5</sup> Office Action of February 9, 2005, page 7

The portions of Sowler relied on in this rejection state:

[0106] The protocol analyser (PA) 126 has two main responsibilities, namely to establish the context for the message, and to determine the type of the data contained in the message, that is the format in which the data is in, for example html or IDENTRUS format. Each protocol handler is configured to 'understand' a particular type of message. The PA determines the type of data from the transport/main protocol used. Depending on the type of data and context of the message determined the protocol analyser selects a protocol handler, and passes the message to the selected handler. The protocol handler then strips away the message level protocol wrapper. The message is next passed to the message analyser.<sup>6</sup>

[0144] In an embodiment of the invention, the message 200 is an XML document. The message comprises a number of message blocks 202-214.<sup>7</sup>

From these two excerpts, several things can be seen: (a) **Sowler** is dealing with different protocols and must recognize the protocol in order to understand a message and (b) a message can be in XML. These excerpts of **Sowler** do not show character recognition, nor do they suggest the use of a *data structure* that provides a direct correspondence between a *data value* representing a character and *status values* that can show the validity of the character. Thus, even the combination of **Sowler** with **Sikdar** does not meet the limitation of claim 1 of *determining a validity of a character represented by said data value in response to a member of a data structure, said member having a direct correspondence to said data value*. Thus, the claim limitations are not met.

Further, the alleged motivation to combine these references falls short. Neither **Sowler** nor **Sikdar** is directed to character recognition; they are interested in protocol recognition. Therefore, it is asserted that one of ordinary skill in the art would not be motivated to combine these references to reach the claimed invention.

Still further, one of ordinary skill in the art would not combine these references when they are looked at as a whole. While both references are concerned with aspects of protocols, **Sikdar** is primarily directed to recognizing and validating different protocols. In contrast, **Sowler** is primarily directed to a service message protocol that can be used between financial entities, in which message are sent in two parts, each part of which is digitally signed. One of ordinary skill

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<sup>6</sup> Sowler, paragraph 106

<sup>7</sup> Sowler, paragraph 144

in the art would not look at these different aims as a reason to combine these references, but would look to more closely related art with which to combine these references.

For all of these reasons, the rejection of claims 7, 8, 15, 16 and 23-26 under 35 U.S.C. § 103(a) has been overcome.

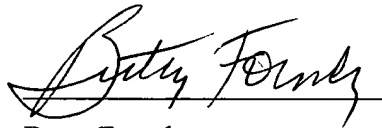
#### **VIII. Conclusion**

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: September 27, 2005

Respectfully submitted,

A handwritten signature in cursive script, reading "Betty Formby", written over a horizontal line.

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